

**Notice of Allowability**

Application No.

10/809,577

Examiner

Jeanne-Marguerite Goodwin

Applicant(s)

TAKAHASHI ET AL.

Art Unit

2841

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/25/05.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>3/25/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                              | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. De Liguori on September 16, 2005.

The following corrections have been made to correct informalities and bring them into better conformance with U.S. practice, the application has been amended as follows:

- a. In claim 1, line 1: "by" has been replaced by --comprised of-- ;
- b. In claim 1, line 2: -- mounted for undergoing rotation, the chronograph timepiece-- has been added before "comprising" ;
- c. In claim 1, line 3: "constituting" has been replaced by --forming-- ;
- d. In claim 1, line 4: "rotated based on" has been replaced by --for undergoing rotation in accordance with-- ;
- e. In claim 1, lines 8-9: "at least one of an automatic winding apparatus and a hand winding apparatus;" has been deleted because as such recitation is not relevant to the structure of the "zeroing" feature to which the claims are directed;
- f. In claim 1, lines 10-11: " , wherein the second chronograph train wheel including" has been replaced by "comprising" ;
- g. In claim 1, line 12: --having a second heart cam-- has been added after "pinion" ;
- h. In claim 1, after line 12 INSERT (indented):

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-- a chronograph second hand connected to the second chronograph wheel & pinion for indicating second time;-- has been inserted;

i. In claim 1, lines 13-14: “, wherein the minute chronograph train wheel including” has been replaced by --comprising-- ;

j. In claim 1, line 15: --having a minute heart cam-- has been added after “pinion” ;

k. In claim 1, after line 15 INSERT (indented):

-- a chronograph minute hand connected to the minute chronograph wheel & pinion for indicating minute time;-- has been inserted;

l. In claim 1, lines 16-17: “, wherein the hour chronograph train wheel including-- has been replaced by “comprising” ;

m. In claim 1, line 18: --having an hour heart cam-- has been added after “pinion” ;

n. In claim 1, after line 18 INSERT (indented):

-- a chronograph hour hand connected to the hour chronograph wheel & pinion for indicating hour time;-- has been inserted;

o. In claim 1, lines 19-33 DELETE :

“wherein an angle made by a straight line connecting a rotational center of the second chronograph wheel & pinion and a rotational center of the hour chronograph wheel & pinion and a rotational center of the hour chronograph wheel & pinion and a straight line connecting the rotational center of the second chronograph wheel & pinion and a rotational center of the minute chronograph wheel & pinion is constituted to be 90 degrees;

the hour chronograph wheel & pinion including an hour heart cam;

the minute chronograph wheel & pinion (342) including a minute heart cam;

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the second chronograph wheel & pinion including a second heart cam, further comprising:

a reset button for controlling to operate to zero the hour chronograph wheel & pinion, the minute chronograph wheel & pinion and the second chronograph wheel & pinion; and” has been deleted;

p. In claim 1, line 34: “operated by operating the reset button for controlling to operate” has been replaced by -- for contacting the hour heart cam, the minute heart cam and the second heart cam-- ;

q. In claim 1, line 36: “operate to zero” has been deleted;

r. In claim 1, line 37: “operate to zero” has been deleted;

s. In claim 1, line 37: “;” has been replaced by --, respectively; and” after “pinion”

t. In claim 1, after line 37 INSERT (indented):

“a reset button for controlling operation of the hammer to zero the hour chronograph wheel & pinion, the minute chronograph wheel & pinion and the second chronograph wheel & pinion;

wherein a straight line connecting a rotational center of the second chronograph wheel & pinion and a rotational center of the hour chronograph wheel & pinion is disposed at an angle of 90 degrees relative to a straight line connecting the rotational center of the second chronograph wheel & pinion and a rotational center of the minute chronograph wheel & pinion; and” has been inserted;

u. In claim 1, line 39: --;-- has replaced “and” after “the hour heart cam”;

v. In claim 1, line 39: --;-- has replaced “and” after “the second heart cam” ;

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- w. In claim 1, line 40: “(342d)” has been deleted ;
- x. In claim 1, line 40: “constituted to be” has been deleted;
- y. In claim 1, line 42: --, respectively-- has been added after “the minute heart cam”;
- z. In claim 1, lines 42-44: “when the hammer is brought into contact with the hour heart cam, the second heart cam and the minute heart cam,” has been deleted;
- aa. In claim 1, line 44: “press” has been replaced by --pressing-- ;
- bb. In claim 1, line 45: “is constituted to pass” has been replaced by --passes-- ;
- cc. In claim 1, line 46: --- has replaced “; and” after “pinion”;
- dd. In claim 1, lines 47-55 DELETE:  
“wherein “hour” of a result of measuring chronograph is indicated by a  
chronograph hour hand attached to the hour chronograph wheel & pinion;  
“minute” of the result of measuring the chronograph is indicated by a chronograph  
minute hand attached to the minute chronograph wheel & pinion; and  
“second” of the result of measuring the chronograph is indicated by a chronograph  
second hand attached to the second chronograph wheel & pinion.” has been deleted;
- ee. In claim 2, line 1: “Claim 1,” has been replaced by --claim 1;-- ;
- ff. In claim 2, lines 2-3: “provided movably by being guided by a hammer” has been  
replaced by --has a guide portion and is mounted for undergoing movement; and further  
comprising guide pin for contacting the guide portion of the hammer to guide movement of the  
hammer.” ;
- gg. In claim 3, line 1: “Claim 2,” has been replaced by --claim 2;-- ;

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- hh. In claim 3, line 2: --first-- has been added before “clearance”;
- ii. In claim 3, line 2: “provided” has been replaced by --formed-- ;
- jj. In claim 3, line 2: “a” has been replaced by --the-- ;
- kk. In claim 3, line 3: “for guiding to move the hammer” has been replaced by --of the hammer-- ;
- ll. In claim 3, line 3: “hammer” before “guide” has been deleted;
- mm. In claim 3, line 3: “and the” after “pin” has been replaced by --when movement of the hammer is guided by the guide portion and the guide pin; and wherein a second-- ;
- nn. In claim 3, line 4: --formed between the guide portion of the hammer and the guide pin—has been added after “clearance” ;
- oo. In claim 3, line 6: “constituted to be” has been deleted;
- pp. In claim 3, line 6: --first-- has been added before “clearance”;
- qq. In claim 3, lines 6-7: “when the hammer is guided by the hammer guide pin.” has been deleted;
- rr. In claim 4, line 1: “Claim 1,” has been replaced by --claim 1;-- ;
- ss. In claim 4, line 2: “made by an” after “ angle” has been deleted;

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tt. In claim 4, line 2: --formed between a contact portion of the-- has been added before “hour heart cam”;

uu. In claim 4, lines 2-3: “contact portion at which” has been replaced by --for contacting-- ;

vv. In claim 4, lines 3-4: “is brought into contact with the hour heart cam” has been deleted;

ww. In claim 4, line 4: --contact portion of the-- has been added before “second heart cam”;

xx. In claim 4, line 4: “contact portion at which” has been replaced by --for contacting--

yy. In claim 4, line 5: “is brought into contact with the second heart cam” has been deleted;

zz. In claim 4, line 6: “constituted to be” has been deleted;

aaa. In claim 4, line 6: --;-- has been added after “10 degrees”;

bbb. In claim 4, line 6: --wherein-- has been added before “an”;

ccc. In claim 4, line 7: “made by” after angle has been deleted;

ddd. In claim 4, line 7: --formed between a contact portion of-- has been added before “the hour heart cam”;

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eee. In claim 4, lines 7-8: “contact portion at which the hammer is brought into contact with the hour heart cam” has been deleted;

fff. In claim 4, line 9: --contact portion of the-- has been added before “minute heart cam”;

ggg. In claim 4, line 9: “contact portion at which” has been deleted;

hhh. In claim 4, line 9: --for contacting-- has been added after “minute heart cam”;

iii. In claim 4, lines 9-10: “brought into contact with the minute heart cam is constituted to fall” has been deleted;

jjj. In claim 4, line 11: “a” has been replaced by --the-- ;

kkk. In claim 4, line 11: “through” has been replaced by --to--;

lll. In claim 5, line 1: “The” has been replaced by --A-- ;

mmm. In claim 5, line 1: “Claim 1” has been replaced by --claim 1;--

nnn. In claim 5, line 2: --the hammer has-- has been added before “a hammer operating pin”

ooo. In claim 5, line 2: --;-- has been added after “pin”;

ppp. In claim 5, line 2: “is provided at the hammer” has been deleted;

qqq. In claim 5, line 3: --wherein-- has been added after “and”;



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rrr. In claim 5, line 5: “made” has been replaced by --formed-- ;

sss. In claim 5, line 6: --a contact portion of-- has been added after “to”;

ttt. In claim 5, line 6: “contact” has been deleted;

uuu. In claim 5, line 6: --a contact portion of-- has been added before “the second heart cam”;

vvv. In claim 5, lines 6-7: “contact portion of the hammer falls in a” has been replaced by --is in the-- ;

www. In claim 5, line 7: “through” has been replaced by --to-- ;

xxx. After claim 5, line 7 INSERT NEW CLAIM 6:

“6. A chronograph timepiece according to claim 1; further comprising at least one of an automatic winding apparatus and a hand winding apparatus.” has been inserted.

#### *Reasons for Allowance*

The following is an examiner’s statement of reasons for allowance:

The reference to US Patent 5,793,708 to Schmidt et al. shows a timepiece having a chronograph mechanism comprising: (col. 4, lines 1-34) a second chronograph train wheel including a second chronograph wheel, pinion, second heart cam and chronograph second hand, a minute chronograph train wheel including a minute chronograph wheel, pinion, minute heart cam and chronograph minute hand, an hour chronograph train wheel including an hour chronograph wheel, pinion, hour heart cam and chronograph hour hand, a reset button (6) (col. 3,

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lines 12-14) and hammers (68, 69, 70) (col. 5, lines 11-39). Applicant's claimed invention comprises a second chronograph train wheel including a second chronograph wheel, pinion, second heart cam and chronograph second hand, a minute chronograph train wheel including a minute chronograph wheel, pinion, minute heart cam and chronograph minute hand, an hour chronograph train wheel including an hour chronograph wheel, pinion, hour heart cam and chronograph hour hand, wherein an angle made by a straight line connecting a rotational center of the second chronograph wheel & pinion and a rotational center of the hour chronograph wheel & pinion and a straight line connecting the rotational center of the second chronograph wheel & pinion and a rotational center of the minute chronograph wheel & pinion is constituted to be 90 degrees, a reset button and a hammer, wherein when the hammer is brought into contact with the hour heart cam and the second heart cam and the minute heart cam, a position of the hammer is constituted to be determined only by the hour heart cam, the second heart cam and the minute heart cam and when the hammer is brought into contact with the hour heart cam, the second heart cam and the minute heart cam, a direction of a press force exerted to the hammer is constituted to pass the rotational center of the second chronograph wheel & pinion thus reducing the number of parts, respectively. Furthermore, the timepiece of Schmidt et al. does not have the chronograph structure having an angle made by a straight line connecting a rotational center of the second chronograph wheel & pinion and a rotational center of the hour chronograph wheel & pinion and a straight line connecting the rotational center of the second chronograph wheel & pinion and a rotational center of the minute chronograph wheel & pinion is constituted to be 90 degrees and single hammer, wherein when the hammer is brought into contact with the hour heart cam and the second heart cam and the minute heart cam, a position of the hammer is constituted to be

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determined only by the hour heart cam, the second heart cam and the minute heart cam and when the hammer is brought into contact with the hour heart cam, the second heart cam and the minute heart cam, a direction of a press force exerted to the hammer is constituted to pass the rotational center of the second chronograph wheel & pinion and there seems to be no motivation to modify the chronograph mechanism shown in Schmidt et al. to accommodate the particular chronograph structure using a single hammer to zero/reset the chronograph hands, respectively.

Claims 2-5 have been found to be allowable as being dependent upon the allowable claim 1.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 disclose related devices. US Patent 5,220,541 to Vuilleumier, US Patent 6,428,201 to Shibuya et al. and US Patent 6,406,176 to Takahashi et al. disclose chronograph mechanisms.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

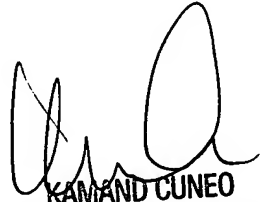
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne-Marguerite Goodwin whose telephone number is (571) 272-2104. The examiner can normally be reached on alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMG  
09/16/05



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